Name: Date: Period:

**Closed Ecosystem Model**

Analysis & Comprehension:

1. On the diagram (opposite side of paper), add information about carbon dioxide and oxygen next to (A) plant, (B) fish, (C) snail. For example: uses oxygen and produces carbon dioxide…
2. What happened to the carbon in carbon dioxide after plants converted the carbon dioxide into oxygen?
3. What would happen to the closed ecosystem if you:
   1. Cover it with a blanket?
   2. Take away the plants?
   3. Take away the animals?
   4. Add more fish and snails?
   5. Add more plants?
4. How is the Earth a “closed” system?

Name: Date: Period:

**Closed Ecosystem Model KEY**

Analysis & Comprehension:

1. On the diagram (opposite side of paper), add information about carbon dioxide and oxygen next to (A) plant, (B) fish, (C) snail. For example: uses oxygen and produces carbon dioxide…

**See model attached…**

1. What happened to the carbon in carbon dioxide after plants converted the carbon dioxide into oxygen?

**It now has become part of the plant**

1. What would happen to the closed ecosystem if you:
   1. Cover it with a blanket?

**No light will get in, therefore, the process of photosynthesis cannot occur, eventually killing the plants, depleting the oxygen for the animals, as well.**

* 1. Take away the plants?

**No way to get oxygen**

* 1. Take away the animals?

**Decreased amount of carbon dioxide produced; nothing to take in the free oxygen**

* 1. Add more fish and snails?

**Increased production of carbon dioxide**

* 1. Add more plants?

**Increased production of oxygen; more photosynthesis**

1. How is the Earth a “closed” system?

**As long as there are abiotic and biotic factors in the closed system, the cycling process of carbon dioxide and oxygen can occur. There is water, air, and life on the Earth, with light shining in, and no matter leaves or enters the system.**